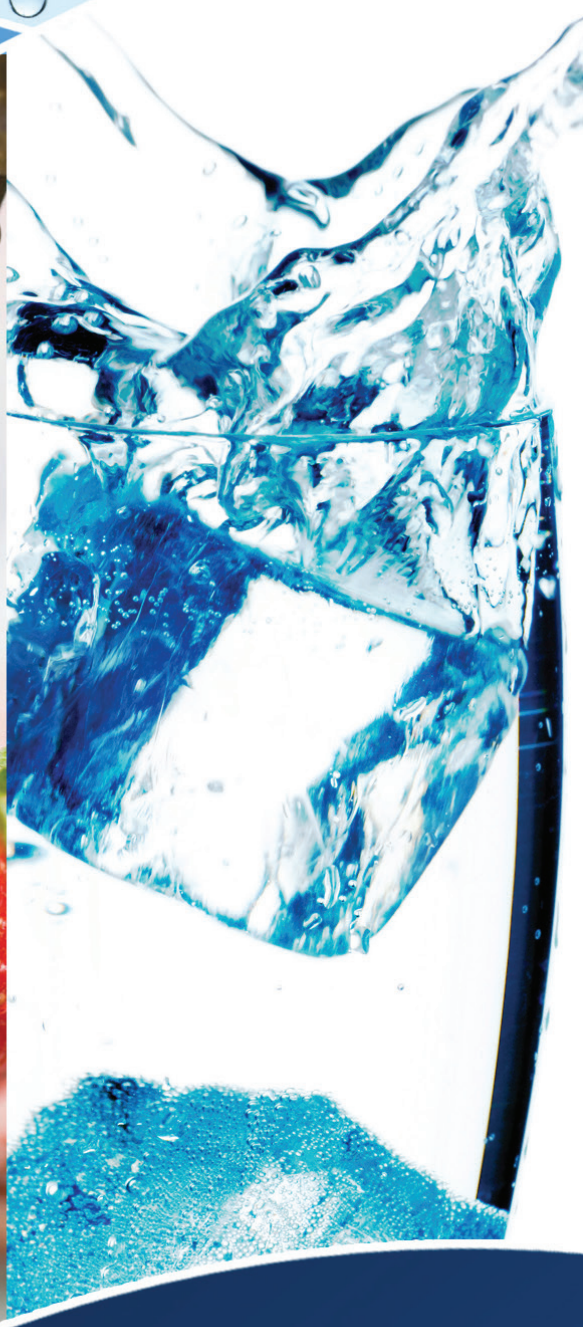
ANNUAL WATER QUALITY REPORT

Water Testing Performed in 2014



Presented By

CITY OF ISSAQUAH WASHINGTON

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A Clean Report

By Mayor Fred Butler

Each year, we issue this water-quality report to educate you, our valued customers, about where your water comes from, how it's delivered and how to conserve it.

The City of Issaquah is committed to providing you the highest-quality water possible.

And once again, as you'll see in this report, we have met all safety guidelines and water quality requirements.

Meanwhile, our dedication to environmental sustainability will help ensure our region's water remains safe, clean, and reliable for generations to come.

If you have any questions about this report, please call us at 425-837-3470 or visit issaquahwa.gov/water.

Thank you.

Be Water Smart!

You play a role in using water wisely and can save money in the process. Be conscious of the amount of water your household uses and look for ways to avoid waste. Here are a few tips:

1. Turn off the tap! This is an easy way to save water when brushing your teeth, shaving, or washing dishes.
2. Wash only full loads. Dishwashers and most clothes washers use the same amount of water with every cycle.
3. Take a 5-minute shower! You'll find it's plenty of time: Try it and see! Get a free shower timer for you and your kids.
4. Check toilets for leaks every year. Put a few drops of food coloring in the tank and wait 10 minutes. If color shows in the bowl, you have a leak. Many leaks are silent and waste hundreds of gallons a day.
5. Pay attention to outdoor water use. Water your lawn in the early morning or evening to reduce evaporation and avoid big water bills. Use timers or irrigation controllers (but be sure to adjust weekly as plant needs change dramatically from spring to summer and fall).
6. Shop for WaterSense-labeled faucets, toilets, and shower heads; they've been tested to reduce water use and provide exceptional performance.

Contact the Office of Sustainability for a free shower timer. Visit us online at issaquahwa.gov/sustainability.

Community Participation

Would you like to get involved? Share your opinions on the City's drinking water! The Issaquah City Council meets at 7 p.m. the first and third Mondays of each month at City Hall South, 135 E. Sunset Way.

The Council Infrastructure Committee meets at 5:30 p.m. the third Thursday of each month in the Pickering Room of City Hall Northwest, 1175 12th Ave. N.W. Find a full calendar at issaquahwa.gov.

Substances That Could Be in Water

In order to ensure that tap water is safe to drink, the U.S. EPA and/or the Washington State board of health prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include: microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems; radioactive contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Preventing Backflow Contamination

If you have a water connection to an irrigation or fire sprinkler system, boiler, pool/spa, water feature, or photo development equipment, State law requires that you install a backflow prevention assembly and have it tested annually.

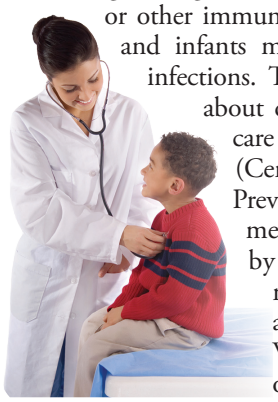
A backflow prevention assembly will prevent contaminated water from flowing back into your drinking water or into the City's water system. Most residences and businesses with backflow prevention assemblies are registered with the City of Issaquah.

If you haven't been testing your backflow assembly, call 425-837-3470 for assistance in finding a tester to help protect the water you drink. Please also call us if you know of a potential threat to our drinking water.

Important Health Information

While your drinking water meets the U.S. EPA's standard for arsenic, it does contain low levels of arsenic. The EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791 or water.epa.gov/drink/hotline.



Cryptosporidium

Cryptosporidium is a microbial parasite found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people are at greater risk of developing life-threatening illness. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

The Lower Issaquah Valley Aquifer water source is a groundwater source, and therefore is not required to be tested for *Cryptosporidium*.

The CWA water sources, the Cedar and Tolt supplies, were tested for *Cryptosporidium* in 2014 with no detections. Although chlorination is not effective against *Cryptosporidium*, ozone disinfection, which is used at the Cedar and Tolt treatment plants, is very effective at destroying *Cryptosporidium* and other microbes.

The U.S. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791 or from water.epa.gov/drink/hotline.

QUESTIONS?

For more information about this report or your drinking water, call Gregory P. Keith, the City's Water Operations Manager, at 425-837-3470. You can also connect with us on Facebook, Twitter, and more at issaquahwa.gov/social.

Where Does My Water Come From?

In 2014, the City of Issaquah provided 787 million gallons of high-quality drinking water to about 23,000 customers through more than 10,700 water connections.

Most of Issaquah's water is produced from four groundwater wells, which range in depth from 100 to 400 feet.

Chlorine is added at the well sites to disinfect the drinking water. The water is then conveyed through 110 miles of water main and 12 water booster stations before it's stored in one of 19 reservoirs, which hold a total of 12 million gallons.

Issaquah is a member of the Cascade Water Alliance (CWA), which also includes the cities of Bellevue, Kirkland, Redmond, and Tukwila and the Sammamish Plateau and Skyway water and sewer districts.

Currently, CWA gets its water from the City of Seattle water system originating in the Tolt and Cedar river watersheds.

Locally, the CWA water is delivered to the Montreux and Lakemont neighborhoods. It is also delivered to Issaquah Highlands where it's blended with well water.

With the exception of Issaquah Highlands, the City's well water and CWA water are not mixed, as the distribution systems are separated. Water purchased from the CWA is fluoridated, while Issaquah well water is not (with the exception of the Issaquah Highlands and Talus neighborhoods). See a map of the fluoridated areas at issaquahwa.gov/water.

Several years ago, CWA also purchased Lake Tapps in east Pierce County as the region's newest water supply in decades. As a result of customers' wise use of water, responsible plumbing codes, and water-efficient appliances, CWA will have enough water for the future and likely won't develop Lake Tapps until it is needed.

Planning for water takes time. That's why we are planning now for that future!

Resource-Efficient Water Management

Conservation and efficient use of water are important strategies for protecting our local and regional streams as well as using our infrastructure wisely. For decades, the City of Issaquah has worked with the community to help ensure efficient use of water.

Water use is tracked as a Sustainable City Indicator to help gauge progress toward long-term community goals. Total water use has declined significantly over the last decade due to changes in land use patterns, increased efficiency, changing water use, and your efforts to use water wisely.

The City is a member of the Cascade Water Alliance, and has adopted regional water use efficiency goals. The following regional goal was adopted for 2014 – 2019:

Cascade will dedicate resources necessary to achieve a cumulative drinking water savings of 0.6 million gallons per day on an annual basis and 1.0 million gallons per day on a peak season (June – September) basis by 2020.

Both the City and Cascade provide water efficiency programs and services for water customers in Issaquah and in the region. In 2014, Cascade programs have resulted in work with over 12,000 customers with estimated water savings of 178,459 gallons of water per day, or 29.7% of Cascade's 2014 – 2019 goal.

The City also supports water-efficient, green-certified homes and commercial buildings and provides rate incentives for lower water use. In addition, City public works professionals help to reduce water leakage with investments in water mains, reservoirs, and other infrastructure. In 2014, water system leakage was estimated at 7.92%. Ongoing operational improvements, meter testing, and other programs seek to continue to keep this figure below the State-required 10 percent limit.

For more information about the water conservation programs offered by the City of Issaquah, visit issaquahwa.gov/sustainability or call 425-837-3400.

2014 Water Production and System Leakage

Water production and purchases	787.6 million gallons
Authorized consumption	725.2 million gallons
Distribution system leakage	62.4 million gallons
2014 leakage	7.9%
3-year average	7.5%

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Any UCMR3 detections are shown in the data tables in this report. More information on UCMR3 can be found at water.epa.gov.

REGULATED SUBSTANCES

				Lower Issaquah Valley Aquifer: (Wells 1,2,4,5–Talus–Issaquah Highlands)		CWA-Cedar Supply: (Montreux, Lakemont, Issaquah Highlands)		CWA-Tolt Supply: (Montreux, Lakemont, Issaquah Highlands)			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2007	10	0	9.9[1]	ND–9.9[1]	NA	NA	NA	NA	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2014	2	2	NA	NA	0.0014	One Sample	0.0012	One Sample	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Bromate (ppb)	2014	10	0	NA	NA	NA	NA	0.2	ND–1.5	No	By-product of drinking water disinfection
Chlorine (ppm)	2014	[4]	[4]	0.47	0.03–0.97	0.70	ND–1.48	0.70	ND–1.48	No	Water additive used to control microbes
Fluoride (ppm)	2014	4	4	0.80[2]	0.66–0.94[2]	0.8	0.70–0.85	0.8	0.7–0.9	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2014	60	NA	NA	NA	27.43	12.5–36.4	27.43	12.5–36.4	No	By-product of drinking water disinfection
Nitrate (ppm)	2014	10	10	0.32	ND–0.51	0.02	One Sample	0.11	One Sample	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	NA	NA	40.85	19.4–48.1	40.85	19.4–48.1	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2014	TT	NA	NA	NA	0.9	0.4–1.9	1.3	1.1–1.7	No	Naturally present in the environment
Turbidity[3] (NTU)	2014	TT	NA	NA	NA	1.6	0.2–1.6	0.28	0.05–0.28	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT=95% of samples <0.3 NTU	NA	NA	NA	NA	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2012	1.3	1.3	0.342	0/49	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2012	15	0	1	0/49	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED CONTAMINANT MONITORING REGULATION 3 (UCMR3) LOWER ISSAQUAH VALLEY AQUIFER

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Chromium (ppb)	2014	0.13	ND–0.3
Hexavalent Chromium (ppb)	2014	0.083	ND–0.164
Molybdenum (ppb)	2014	0.13	ND–1
Strontium (ppb)	2014	74.88	55–104
Vanadium (ppb)	2014	0.29	ND–0.4

[1] This represents the highest reading, which was found only in one well. This well water is then blended with other water to further dilute it (a Washington State Department of Health-recommended practice).

[2] Talus Urban Village and the Issaquah Highlands areas only.

[3] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.